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A REVISION OF THE MALAYAN SPECIES OF PORITIINAE (LEPIDOPTERA: LYCAENIDAE)

By A. Steven Corbet, D.Sc., Ph.D., F.I.C., F.R.E.S.

(*British Museum, Natural History.*)

With Plate 1 and Twenty-one Figures in the Text.

Manuscript received 1st November, 1939.

(Read 5th June, 1940.)

Fruhstorfer (1919, *Arch. Naturgesch.* **83** (A) (2) : 77–101) published a monograph of the Poritiinae illustrated by photographs of the male genitalia. In the account of this sub-family in Seitz (1927, *Grossschmett. Erde* **9**: 1007–1010) several of Fruhstorfer's names have been omitted.

With few exceptions, the species comprising this sub-family are very rare and subject to considerable variation : as a rule, subspecific differences are quite marked and it is not always easy to associate the sexes. Malaysia is the headquarters of the group and only *Poritia manilia*, and possibly *P. plateni*, remain to be discovered in the Malay Peninsula. With two species, *P. erycinoides* and *P. hewitsoni*, the female shows an abrupt change in the pattern of the upperside on passing from one sub-region to another. In *P. hewitsoni* and *P. phama*, the ground-colour in the male becomes paler and greener on passing from Burma, through Neomalaya, to Java.

During the few months he spent in Singapore, Dr. A. R. Wallace obtained no less than six species of Poritiinae, *viz. Poritia erycinoides phraatica* Hew. ♀, *P. phama taleva* subsp. n. ♀, *P. pleurata* Hew. ♂, *Simiskina phalena phalena* (Hew.) ♂, *S. pheretia pheretia* (Hew.) ♂♀, and *S. phalia potina* (Hew.) ♀.

Examination of the male genitalia.

The male genitalia of *Cyaniriodes* and of *Deramas* differ distinctly from those of *Poritia* and *Simiskina*, and the two latter differ in the shape of the clasper.

In general, the species of *Poritia* and *Simiskina* with distinct facies have distinct genitalia, while species which are difficult to separate on wing pattern have very similar genitalia. The clasper and aedeagus in *P. manilia*, *P. karennia*, *P. hewitsoni*, *P. phama* and *P. pleurata* are quite similar but *P. promula* and *P. phormedon* have a stouter aedeagus and more robust clasper. *S. pediada* and *S. philura* can be separated by the relative size of the aedeagus.

In making genitalia preparations of this sub-family, it is often difficult to maintain the organs in the same relative positions, and there is a tendency for the apex of the clasper to turn over so that it appears to be tapering : the aedeagus is not cylindrical, appearing broader when a lateral view is obtained.

Key for the separation of the genera of Poritiinae.

1(4). F veins 8 and 9 absent.

2(3). F vein 11 anastomosed first with vein 10 and then with vein 12 *Cyaniriodes* Nic. (type *libna* Hew.).

3. F vein 11 anastomosed with vein 12 for part of their lengths and then both continue free to the costa
Poriskina H. H. Drc. (type *phakos* H. H. Drc.).
4. F vein 9 or both veins 8 and 9 present.
5(8). F vein 9 absent.
6(7). ♂ upH with a brand above vein 7 covered by an erectile tuft of hairs
Poritia Mre. (type *hewitsoni* Mre.).
7. ♂ upH first brand and tuft as in *Poritia*, and with a second small obscure brand above the origin of vein 4, overlying which is an insignificant tuft of recumbent dark hairs
Simiskina Dist. (type *fulgens* Dist.) (= *Massaga* Doh., type *potina* Hew.).
8. F vein 9 present. ♂ no brand, but H cell may be clothed with long fine hairs in some forms
Deramas Dist. (type *livens* Dist.) (= *Zarona* Nic., type *jasoda* Nic.).

Genus *Cyaniriodes* Nic.

Cyaniriodes libna andersonii (Mre.).

Hypolycaena libna Hewitson, 1869, *Ill. diurn. Lep. Lyc., Suppl.* : 15, pl. v, f. 39, 40 ♀; Borneo.
Logania andersonii Moore, 1884, *J. asiat. Soc. Bengal* **53** : 22; ♀, Mergui. 1886, *J. linn. Soc. Zool.* **21** : 39, pl. iii, f. 6 ♀.

Very few specimens of this beautiful butterfly are known. The nominotypical form is figured in Seitz, pl. 154 g 6 ♂, 7 und. A pair from Johore (♂, Lombong, 19.vi.1938; and ♀, Kota Tinggi, 10.i.1937, both *J. N. Eliot*) agree with *andersonii*.

Genus *Poriskina* H. H. Drc.

Poriskina phakos H. H. Drc.

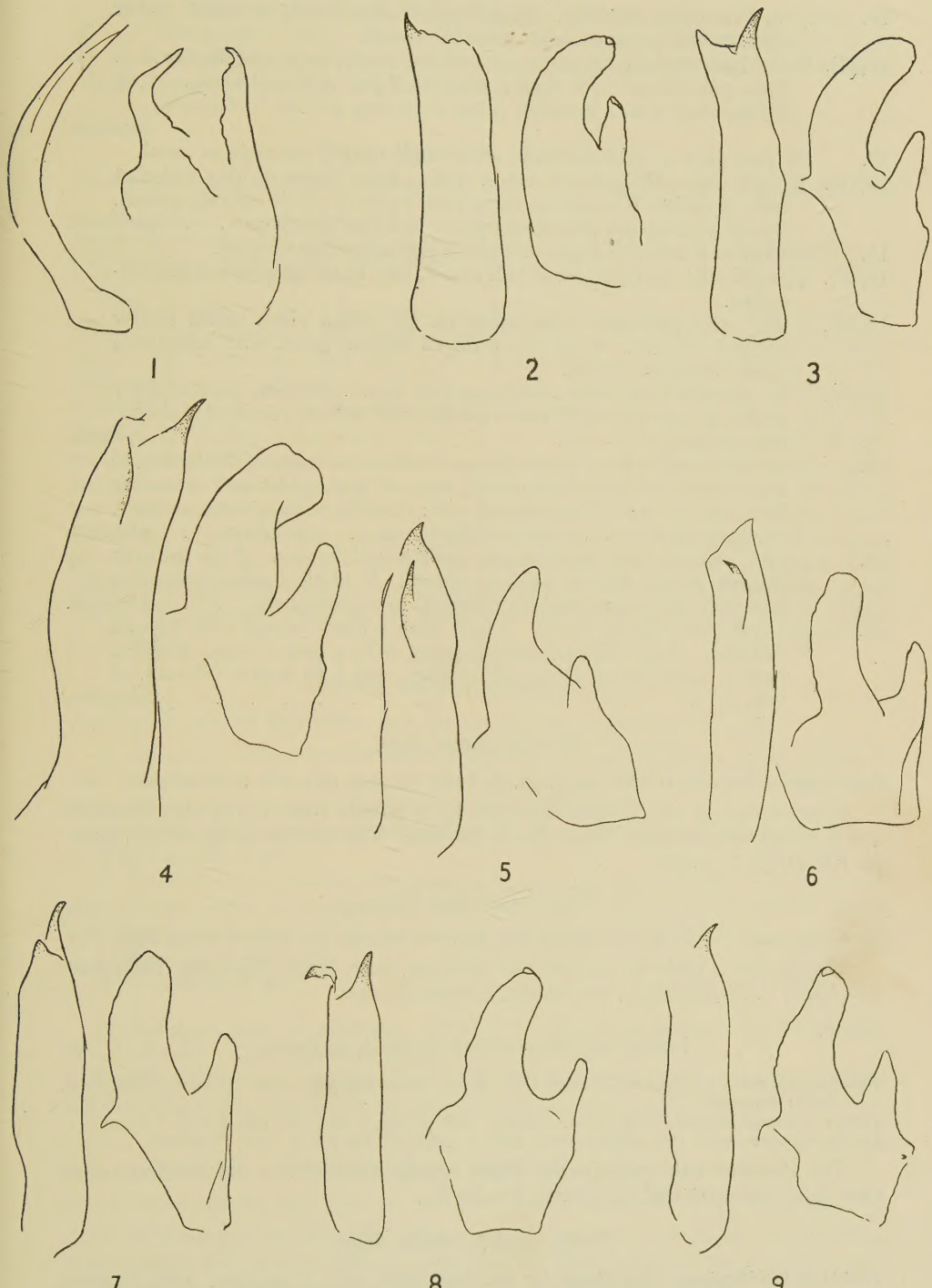
Poriskina phakos H. H. Druce, 1895, *Proc. zool. Soc. Lond.* **1895** : 570, pl. xxxiv, f. 15 ♂; Mindanao.

This species, which appears to be known only from Mindanao, is figured in Seitz, pl. 154 l 5 ♀.

Genus *Poritia* Mre.

Key for the separation of the Malaysian species of *Poritia* Mre.

1 (2). Un white with dark brown spots . . . . . *plateni*.
2. Un with catenulated bands as usual.
3 (4). Un white with prominent ferruginous subapical patches on F and H. *karennia*.
4. Un without dark subapical patches.
5 (8). Un catenulated bands evenly distributed, unF with two bands across spaces 2 and 3 internal to post-discal band.
6 (7). Un pale reddish buff, bands cinnamon. ♂ upF blue colour confined to spaces 1a and 1b, and occasionally at base of space 2. ♀ up rich purple, with rusty red submarginal spotting . . . . . *sumatrae*.
7. Un bands very dark reddish-brown in ♂, ochreous brown in ♀. ♂ upF blue colour to vein 4, upper edge of cell blue, and with prominent subapical blue spots. ♀ up brownish-black with narrow orange discal patch on F and H. . . . . *philota*.
8. Un catenulated bands not evenly distributed, wider apart especially on disc, usually only one band across spaces 2 and 3 internal to post-discal band.
9(10). ♀ up orange with black bordering. ♂ up very variable, but always bluer than the remaining species, F apical area blue, or black with broad blue subapical spotting . . . . . *erycinoides*.



FIGS. 1–9.—Aedeagus and clasper of (1) *Cyaniriodes libna andersonii* (Mre.), Malaya; (2) *Poritia plateni* Stgr., Borneo; (3) *P. karennia* Evans, Burma, Karen Hills; (4) *P. sumatrae sumatrae* (Feld.), Sumatra; (5) *P. philota philota* Hew., Sumatra; (6) *P. erycinoides psophis* Fruh., Sumatra; (7) *P. manilia dawna* Evans, Burma, East Dawnas; (8) *P. hewitsoni hewitsoni* Mre., Sikkim; (9) *P. phama regia* Evans, Mergui.

10. ♀ up blue or purple blue. ♂ upF apical area black, on which rather obscure blue or green spots may be present.
11(12). Un white with pale cinnamon catenulated bands, paler and fainter in ♀. ♀ up pale purple blue with a greenish hue; upH cell black. ♂ up indigo blue, with a greenish tinge, becoming greener in Sumatra *manilia.*
12. Un pale grey or reddish-white, with bands deeply coloured as usual.
13(14). ♂♀ upF cell entirely black but in ♂ may have traces of blue scales at base or middle (except Javanese race where F cell is entirely green). ♀ upF with orange post-discal patch in India and Siam . . *hewitsoni.*
14. ♂♀ upF cell coloured green or blue as ground-colour of wing.
15(20). ♂♀ upH cell, or at least lower half of cell, blue or bluish-green as ground-colour.
16(19). ♀ upF with prominent blue spots on the broad black costal border beyond cell-end. ♂ up not brilliant shining green with unmarked black subapical border.
17(18). ♂ up greenish-blue, with inner edge of F black subapical band sharply angled in space 3, the F black border with at least traces of greenish-blue spotting . . . . . *phama.*
18. ♂ up blue, with a faint greenish tinge, with inner edge of F black subapical band (which is unspotted), more or less regular and extending from end of vein 2 to near end cell: usually with a short, narrow, black streak lying along the middle of vein 1. ♀ unknown . *pleurata.*
19. ♀ upF without blue spots on the black costal border. ♂ up brilliant shining green, with a coppery sheen: F black border unspotted and with inner edge straight (Malaya) or angled (Java) . . *promula.*
20. ♂♀ upH cell entirely black. ♀ upH with a short orange spot beyond cell end. ♂ up brilliant shining green, with a large, black, irregular spot in space 1b on F extending from vein 1 to within 0·5 mm. of vein 2 . . . . . *phormedon.*

Poritia plateni Stgr.

Poritia plateni Staudinger, 1889, *Deuts. ent. Z.* "*Iris*" **2**: 104, pl. i, f. 8 ♂; Palawan.

Represented in the British Museum by a female from north-east Sumatra and 3 males and a female from North Borneo. The species is figured in Seitz, pl. 154 l 6 ♂, 7 ♂ und.

Poritia karennia Evans.

Poritia karennia Evans, 1921, *J. Bombay nat. Hist. Soc.* **28**: 36; ♂♀, Burma, Karen Hills.

Except for a male in the British Museum from Siam (Mewong, 2500 feet, 4.iii.1933, *C. H. Stockley*), not known outside Burma.

Poritia sumatrae sumatrae (Feld. & Feld.).

Pseudodipsas sumatrae Felder & Felder, 1865, *Reise Novara Rhopal.*: 259, pl. xxxvi, f. 24, 25 ♂, 26 ♀; Sumatra.
Poritia sumatrae Distant, 1884, *Rhop. Malay.*: 198, pl. xx, f. 12 ♀, pl. xxii, f. 2 ♂, 3 ♀.
Poritia sumatrae Seitz, 1927, *Grossschmett. Erde* **9**: 1008, pl. 154 h 9 ♂, 10 ♀, 11 ♂ und.

The Bornean subspecies *milia* Fruh. hardly differs from the nominotypical race from Sumatra and the Malay Peninsula.

Poritia philota philota Hew.

Poritia philota Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874**: 346; ♂, Sumatra. 1878, *Ill. diurn. Lep. Lyc.*: 217, pl. lxxxix, f. 19, 20 ♂.
Poritia philota Seitz, 1927, *Grossschmett. Erde* **9**: 1008, pl. 154 h 5 ♂, 6 ♂ und.

Males from Sumatra and Malaya hardly differ. Other *P. philota* subspecies are *nicias* Fruh., North Borneo, and *taïmana* Fruh., Nias : *phare* H. H. Drc., Mindanao (Seitz, pl. 154 i 7 ♂), is a *P. philota* race, the female of which is unrepresented in the British Museum.

Poritia erycinoides phraatica Hew.

Pseudodipsas erycinoides Felder & Felder, 1865, *Reise Novara Rhopal.* : 259, pl. xxx, f. 23, 24 ♂; Java.
Poritia pleurata ♀ Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 346; Singapore.
Poritia phraatica Hewitson, 1878, *Ill. diurn. Lep. Lyc.* : 214, pl. lxxxviii, f. 2 ♀; Singapore.
Poritia phraatica Distant, 1884, *Rhop. Malay.* : 199, pl. xxiv, f. 8 ♀.
Poritia erycinoides phraatica Seitz, 1927, *Grossschmett. Erde* **9** : 1008, pl. 154 k l ♂.

This species is rather uncommon in Malaya in the forested plains and foothills. Other subspecies are *trishna* Fruh., Assam, *elsiei* Evans, Mergui, *psophis* Fruh., north-east Sumatra (Seitz, pl. 154 h 8 ♀ und. as "*manilia*"), *pellonia* Dist. & Pry. (= *phaluke* H. H. Drc.), North Borneo (Seitz, pl. 146 h 7 ♂). Toxopeus separates *erycinoides* (Feld.) (Seitz, pl. 146 e 7 ♂, 8 ♂ und. and Piepers & Snellen, 1918, *Rhop. Java*, pl. xx, f. 23a ♂, b ♀) and *coronata* Fruh. as the races from west and east Java respectively : the ♀ f. *coronata* has blue spots on the fore-wing black border; in ♂ f. *demaculata* Fruh., central Java, the black spotting is much reduced, in the small ♂ f. *naukydes* Fruh., west Java, the blue areas are much reduced, while in ♂ f. *nigra* Fruh., west Java (P. & S., pl. xxvii, f. 182 ♂ *nec* ♀), the upperside is entirely black. There is no reason for supposing that the *naukydes* form is a distinct species; this form was taken with normal males in the Langkawi Islands in January 1939 by Capt. J. N. Eliot.

Poritia manilia evansi subsp. n.

Poritia phama manilia Fruhstorfer, 1917, *Soc. ent.* **32** : 40; ♂, North-east Sumatra.

♂. *Upperside.* Ground-colour more indigo-blue than in subspecies *dawna* Evans ♂, from East Dawnas, and the irregular black submarginal line on the hind-wing, which extends from vein 1 to space 3, broader and more prominent.

Underside. Markings more prominent and deeply coloured than in *dawna.*

Wing expanse 22 mm.

♀. *Upperside* more greenish than in *dawna* ♀, and with the markings on the black subapical border tending to obsolescence. Hind-wing with the tornal area so heavily dusted with blackish-brown that the blue submarginal lunules are not visible.

Underside as in *dawna* ♀.

Wing expanse 28 mm.

♂ *Holotype* and ♀ *Allotype.* MERGUI : King Island, xii.1925 (*Brigadier W. H. Evans*). In British Museum.

In the nominotypical form (Seitz, pl. 154 h 7 ♂), the dark green upperside has an indigo-blue sheen, but appears shining green in a side light.

Poritia hewitsoni marakata subsp. n.

Poritia hewitsoni Moore, 1865, *Proc. zool. Soc. Lond.* **1865** : 775, pl. xli, f. 10 ♂; ♂♀, Bengal.

♂. *Upperside* pale greenish-blue, shining emerald green in a side light, with markings as in *hewitsoni* Mre. ♂, from Sikkim, except that the blue spotting on the fore-wing black subapical border is more prominent, and the black spot in space 1b is small.

Underside very pale reddish-buff, with the catenulated bands rather indistinct and

compressed so that a broad clear post-discal band extends from the costa on the fore-wing to vein 2 on the hind-wing. The underside colour and markings hardly differ from some specimens of *hewitsoni*.

Wing expanse 29·5 mm.

Holotype. Malay Peninsula. In British Museum, ex Coll. Davidson. Apparently unique.

Typical *hewitsoni* (Seitz, pl. 146 e 5 ♂, 6 ♀) occurs from Sikkim and Bhutan, through Assam to Upper Burma: female forms *interjecta*, *nigritia* (Seitz, pl. 154 i 3 ♀), and *palilia*, all from Sikkim, have been described by Fruhstorfer. Other subspecies are *tavoyana* Doh., Shan States, Ataran Valley and Tavoy (type locality), and *ampsaga* Fruh., South Annam (Seitz, pl. 154 i 4 ♀), to which latter form Siamese examples may be referred. The distinct Javanese subspecies, which was incorrectly placed as *P. pleurata promula* by Fruhstorfer and by Seitz (pl. 154 k 4 ♂, 5 ♂ und.), remains to be denominated.

Poritia hewitsoni fruhstorferi subsp. n.

♂. Upperside resembles *marakata* ♂, but the fore-wing cell is not blackened. Underside similar to *marakata*, but the bands are deeper red and more confluent. Figured in Piepers and Snellen, pl. xx, f. 24a.

Wing expanse 29·5 mm.

♀. Figured in Piepers and Snellen, pl. xx, f. 24b.

Wing expanse 31 mm.

♂ *Holotype* and ♀ *Allotype*. West Java: Sukabumi, 2000 feet, 1893 (*H. Fruhstorfer*). In British Museum.

In the Malaysian forms of *P. hewitsoni*, there is a tendency for the catenulated bands in the discal area of the fore-wing to be confluent and these bands and the post-discal band are shaded so that the colour is more intense outwardly. In the corresponding *P. phama* forms, the underside colouring is much more uniform.

Poritia phama taleva subsp. n.

Poritia phama H. H. Druce, 1895, *Proc. zool. Soc. Lond.* **1895**: 568, pl. xxxi, f. 18 ♂; Borneo, Kina Balu.

Poritia pleurata pleurata Corbet and Pendlebury *nec* Hewitson, 1934, *Butt. Malay Penin.*: 206, pl. xiv, f. 204 ♂.

♂. *Upperside* differs from subspecies *regia* Evans ♂, from Mergui, in the presence of a small greenish-blue spot in the black border in space 2 on the fore-wing: on the hind-wing, the black costal area is rather more extensive, there are black submarginal spots decreasing in size in spaces 1c, 2 and 3, and an inner series of diffuse, irregular, black submarginal spots placed on veins 1, 2, 3 and 4.

Underside. Colour and markings as in *regia*, except that the cinnamon catenulated bands have a more reddish hue.

Wing expanse 27 mm.

Holotype. Malay Peninsula: Selangor, vii.1894. In British Museum, ex Coll. Fruhstorfer. Other males examined from Singapore (ex Coll. Hewitson) and from Pahang (Raub, 17.ii.1937, *C. F. Cowan*).

♀. Described and figured by Hewitson in 1878, *Ill. diurn. Lep. Lyc.*, pl. lxxxviii, f. 5.

Allotype. Malay Peninsula, Singapore. In British Museum, ex Coll. Hewitson. Hewitson's figure is reproduced in Distant, *Rhop. Malay.*, pl. xxii, f. 5 and in Seitz, pl. 154 l 4.

Poritia phama rajata subsp. n.

♂. *Upperside* ground-colour intermediate between Malayan *taleva* and Borneo *phama* (Seitz, pl. 146 e 4 ♂). The bluish-green spotting on the fore-wing black subapical border as in *phama* but smaller, and the hind-wing markings as in *taleva*, except that the diffuse black spots comprising the inner submarginal series are larger and almost conjoined.

Underside ground-colour paler than in *taleva* and darker than in *phama*, with markings as in these subspecies.

Wing expanse 28 mm.

Holotype. NORTH-EAST SUMATRA, v.1894. In British Museum ex Colls. Fruhstorfer and Martin.

♀. *Upperside* more purple-blue than in *taleva* ♀, otherwise as in that subspecies, except that the blue submarginal lunules on the hind-wing are more prominent.

Underside as in *taleva*; ground-colour slightly paler than in *rajata* ♂.

Wing expanse 31 mm.

Allotype. NORTH-EAST SUMATRA, vii.1894. In British Museum, ex Colls. Fruhstorfer and Martin.

Poritia phama pheda subsp. n.

♂. *Upperside* as in *phama* ♂, from Kina Balu, except that the fore-wing subapical band comprising three greyish-blue spots in spaces 4, 5 and 6, is slightly broader and more clearly defined : on the hind-wing, the black submarginal markings in *phama* are reduced to an elongate submarginal black streak in space 1c.

Underside. Colour and markings as in *phama*, except that the clear post-discal space running from the fore-wing costa to vein 2 on the hind-wing is broader.

Differs from *P. hewitsoni fruhstorferi* in the bluer ground-colour of the upperside and the longer greenish-blue subapical band on the fore-wing and in the regular markings and uniform colouring on the underside.

Wing expanse 30 mm.

Holotype. WEST JAVA : Mt. Gede, 4000 feet, 1896 (*H. Fruhstorfer*). In British Museum, ex Coll. Fruhstorfer.

Other races of *P. phama* are *geta* Fawc., Burma, Toungu, and *courvoisieri* Fruh., East Java.

Poritia pleurata Hew.

Poritia pleurata Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 346; ♂, Singapore (♀ = *phraatica*).
1878, *Ill. diurn. Lep. Lyc.*, pl. lxxxviii, f. 3 & 4 ♂ (f. 5 ♀ = *taleva*).
Poritia pleurata Distant, 1884, *Rhop. Malay.* : 199, pl. xxii, f. 6 ♂.
Poritia pleurata pleurata Seitz, 1927, *Grossschmett. Erde* **9** : 1008, pl. 154 l 3 ♂.

Although the underside of *P. pleurata* appears to be identical with that of Malayan and Sumatran *P. phama*, the appearance of the upperside is quite different and I think the two should be kept separate, at least provisionally. The female of *P. pleurata* is not known to me and I have seen only eight males—3 from Singapore and 4 from North-east Sumatra in the British Museum and one taken in the Malayan state of Johore (Lombong, 2.vii.1938, *J. N. Eliot*).

Poritia promula elegans Fruh.

Poritia promula Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 347; ♀, Java. 1878, *Ill. diurn. Lep. Lyc.* : 216, pl. lxxxviii, f. 12, 13 ♀.
Poritia phraatica Distant *nec* Hewitson, 1884, *Rhop. Malay.* : 199, pl. xxi, f. 21 ♂.
Poritia elegans Fruhstorfer, 1919, *Arch. Naturgesch.* **83** (A) (2) : 87, f. 3 ♂ genitalia; ♂, North-west Sumatra.
Poritia pleurata elegans Seitz, 1927, *Grossschmett. Erde* **9** : 1008, pl. 154 l 2 ♂.

A male from Selangor (Bukit Kutu, 3000 feet, 3.vi.1937, *C. F. Cowan*) and a similar male from Johore (Lombong, 19.vi.1938, *J. N. Eliot*) agree exactly with Distant's figure, which was cited by Fruhstorfer in his original description of *elegans*. A male from Java (Mount Gede, 1898, ex Coll. Oberthür) agrees exactly with the figure of *elegans* in Seitz (which presumably represents the male type from Sumatra), differing from the Malayan males in that the fore-wing black border is angled in spaces 2 and 3. The genitalia of the three males are similar to those of the type of *elegans* (slide in British Museum).

The underside of the two Malayan males is greyish-white, with the ash-coloured markings outlined by dark brown : Distant's figure shows the underside darker with more brownish ochreous markings. The Javanese male has the underside pale reddish-buff, with reddish-brown markings, the whole surface having a washed-out appearance, agreeing in fact with the underside of the female holotype of *promula* Hew. and with females from south-west Sumatra (North Korintji Valley, 5000 feet, ix–x.1921, *C. F. & J. Pratt*), and the Malay Peninsula (Selangor–Pahang, Semangko Pass, 2500 feet, 24.v.1937, *J. N. Eliot*; Pahang, Fraser's Hill, 4250 feet, 1.vi.1932, *A. S. Corbet*; Selangor, Bukit Kutu, 3485 feet, 10.iii.1931, *A. S. Corbet*). All five females are clearly conspecific, and the broad, black costal border on the fore-wing has no blue spotting as in *P. phama*.

The difference in the tone of the colour on the underside of the sexes is noteworthy but it is difficult to believe that the sexes are incorrectly paired : Fruhstorfer's description of the female *elegans* from Singapore (in Coll. Courvoisier) shows that he associated the same male and female.

Poritia phormedon H. H. Drc.

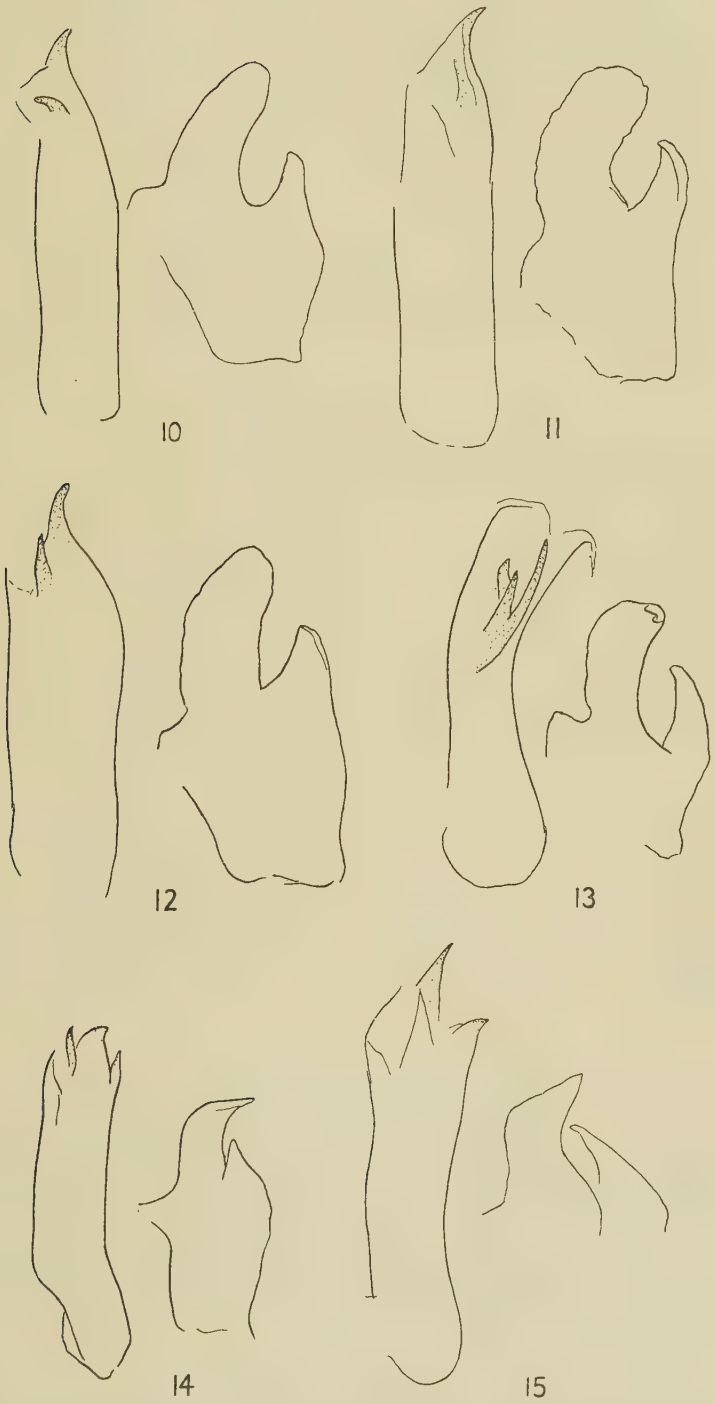
Poritia phormedon H. H. Druce, 1895, *Proc. zool. Soc. Lond.* **1895** : 566, pl. xxxi, f. 16 ♂, 17 ♀; Borneo, Kina Balu.
Poritia hewitsoni phormedon Seitz, 1927, *Grossschmett. Erde* **9** : 1008, pl. 154 i 5 ♀, 6 ♂.

This form, which is known only from Borneo, may even be a subspecies of *P. promula*, for the male genitalia are rather similar. The tone of the colour of the underside is intermediate between that of the male and female of Malayan *P. promula elegans* Fruh., but I consider that the difference in facies on the upperside is too great to make such conspecificity probable.

Genus *Simiskina* Dist.

Key for the separation of the Malaysian species of *Simiskina* Dist.

1 (2). UnF with a broad white post-discal band, increasing towards the dorsum. ♂ up green, H with pale yellow costal area. ♀ up dark brown, normally with large white discal spot on F, and pale greenish-white spotting on both wings in some specimens, but markings may be obsolete . . . . . *phalena.*
2. UnF without a broad white band.
3 (4). UnH tornal area whitened, broadly so in ♀. ♂ up blue. ♀ up dark brown, with H tornal area bluish-white . . . . . *pheretia.*
4. UnH tornal area not whitened.
5 (6). UnH with a blue submarginal line, extending from tornus to vein 4. ♂ up green. ♀ up dark brown . . . . . *pharyge.*
6. UnH without blue scaling.
7(12). Un not brick red or deep yellow.
8 (9). Un uniform pale buff brown, faintly ochreous in ♀, markings rather faint : not purple washed. ♂ up green. ♀ up dark brown . *pasira.*



FIGS. 10–15.—Aedeagus and clasper of (10) *P. pleurata* Hew., Malaya; (11) *P. phormedon* H. H. Drc., Borneo; (12) *P. promula elegans* Fruh., Malaya; (13) *Simiskina phalena phalena* (Hew.), Malaya; (14) *S. pheretia pheretia* (Hew.), Malaya; (15) *S. pasira* (Moult.), Malaya.

9. Un deep purple-brown in ♂, pale ochreous buff in ♀, with a reddish hue : both sexes purple washed.

10(11). ♂ unF termen not definitely paler than rest of wing : ♂ up green. ♀ up dark brown, with a faint purple tinge . . . . . *dohertyi.*

11. ♂ unF termen markedly paler than rest of wing : up green. ♀ up orange with brown border on F usually continued along the inner margin *phalia.*

12. Un brick red or deep yellow.

13(14). Un brick red, with an ochreous hue. ♂ up blue. ♀ up dark brown *pediada.*

14. Un deep yellow, with a reddish hue. UnH post-discal line broadly bordered outwardly with white in spaces 6 and 7. ♂ up green, H with yellow costal area. ♀ up orange, with black bands arranged much as in *Neptis heliodore* (F.) . . . . . *philura.*

Simiskina phalena phalena (Hew.).

Poritia phalena Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 344; ♂, Singapore. 1878, *Ill. diurn. Lep. Lyc.* : 216, pl. lxxxix, f. 14, 15 ♂.
Poritia phalena Distant, 1884, *Rhop. Malay.* : 200, pl. xxii, f. 8 ♂.
Simiskina solyma de Nicéville, 1894, *J. asiat. Soc. Bengal* **63** : 29, pl. iv, f. 10 ♀; Perak.
Poritia phalena phalena Seitz, 1927, *Grossschmett. Erde* **9** : 1009, pl. 154 k 6 ♀, 7 ♂ und.

This species is rare throughout its range. The denominated races are *hartertii* (Doh.), Upper Assam, *proxima* Nic. (= *graecia* (Fruh.)), north-east Sumatra, *niasina* Fruh., Nias and *javanica* (Fruh.), west Java (Seitz, pl. 154 k 8 ♂, 9 ♀, and P. & S., pl. xx, f. 25 ♂). In the female holotype of *proxima*, the white spot on the fore-wing above is obsolete; it is nearly so in ♀ f. *abisarina* (Fruh.), west Java. Of the two Bornean males examined, one from Kina Balu agrees with *javanica* and one from Mt. Marapok is similar to Malayan *phalena*.

Simiskina pheretia pheretia (Hew.).

Poritia pheretia Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 346; ♂♀, Singapore. 1878, *Ill. diurn. Lep. Lyc.* : 217, pl. lxxxix, f. 17, 18 ♂, 16 ♀.
Poritia pheretia Distant, 1884, *Rhop. Malay.* : 200, pl. xxii, f. 9 ♂, 10 ♀.
Poritia pheretia Seitz, 1927, *Grossschmett. Erde* **9** : 1009, pl. 154 h 2 ♂, 3 ♀, 4 ♂ und.

Two examples of this very rare species have been taken recently in Malaya : ♂, Pahang, Bukit Jeriau, 4100 feet, 30.v.1937 (*C. F. Cowan*) and ♀, Selangor, Bukit Kutu, 3400 feet, 6.vi.1937 (*J. N. Eliot*). Subspecies *bilitis* (Fruh.) and *maina* (Fruh.) have been described from north-east Sumatra and North Borneo respectively.

Simiskina pharyge deolina (Fruh.).

Poritia pharyge Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 345; ♂, Borneo.
Poritia pharyge Distant *nec* Hewitson, 1886, *Rhop. Malay.* : 450, pl. xliv, f. 8 ♂.
Poritia pharyge deolina Fruhstorfer, 1917, *Soc. ent.* **32** : 49, ♂, West Sumatra.

It is doubtful if the subspecies *deolina* from Sumatra and Malaya is distinct from *pharyge* (Hew.), from Borneo (Seitz, pl. 154 i 9 ♂, 10 und.). The species is variable on the underside of both sexes and I cannot follow Toxopeus (1930, *De Soort als Functie van Plaats en Tijd*, Amsterdam : 105) in regarding *deolina* from Malaya, Sumatra, Borneo and Java as a species distinct from *pharyge*, this latter being confined to Borneo. In Malaya, *S. pharyge* occurs on the hills and on the plains from Langkawi to Johore.

Simiskina pasira (Moult.).

Poritia pasira Moulton, 1912, *J. Straits Br. R. asiat. Soc.* **6** : 122, f. 2 ♀, ♂♀, Sarawak.

In addition to the types, this rare species is represented in the British

Museum by a female from Victoria Point (xii.1890) and a male from Siam (Renong), both taken by W. Doherty and ex Coll. Oberthür. Specimens taken in Malaya (♂, Johore, Lombong, 26.vi.1938; ♀, Johore, 30 miles N.W. of Johore Bharu, 3.iii.1938, both *C. F. Cowan*) agree with the Bornean types.

Simiskina dohertyi dohertyi Evans.

Simiskina pasira dohertyi Evans, 1924, *J. Bombay nat. Hist. Soc.* **30** : 335, pl. xxvi, H. 3, 4; ♂♀, Tavoy.

Two males taken recently in Malaya (Johore, Mt. Ophir, 4150 feet, 17.iv.1938, *C. F. Cowan*; and Pahang, Gunong Batu Brinchang, 6660 feet, 14.v.1939, *H. M. Pendlebury*) agree with the Burmese form.

Simiskina dohertyi moultoni subsp. n.

A distinct subspecies occurs in Borneo.

♀. On the *upperside*, the brown ground-colour is overlaid with purple, shining in a side light.

Underside. Differs from *dohertyi* Evans ♀, from Tavoy, in the rather more distinct markings and in the much deeper purple gloss covering the wings.

Wing expanse 35 mm.

Holotype. Borneo : Labuan. In British Museum, ex Colls. H. H. Druce, Swinhoe and Joicey. The specimen was figured by Swinhoe (*Lep. Ind.* : 121, pl. 667, f. 2a, 2c) as " *S. phalia.*"

Simiskina phalia potina (Hew.).

Poritia phalia Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 345, ♂, Borneo. 1878, *Ill. diurn. Lep. Lyc.* : 216, pl. lxxxviii, f. 10, 11 ♂.
Poritia potina Hewitson, 1874, *Trans. ent. Soc. Lond.* **1874** : 347; ♀, Singapore. 1878, *Ill. diurn. Lep. Lyc.* : 215, pl. lxxxviii, f. 6, 7 ♀.
Simiskina fulgens Distant, 1886, *Entomologist* **19** : 12; ♀, Malay Peninsula. 1886, *Rhop. Malay.* : 450, pl. xlii, f. 3 ♀.
Poritia potina Distant, 1884, *Rhop. Malay.* : 201, pl. xxii, f. 7 ♀.
Poritia phalia potina Seitz, 1927, *Grossschmett. Erde* **9** : 1009, pl. 154 i l ♀, 2 ♀ und.
Poritia phalia fulgens Seitz, 1927, *Grossschmett. Erde* **9** : 1009.

Specimens of both sexes have been taken on the plains in Johore and Singapore by Captains C. F. Cowan and J. N. Eliot.

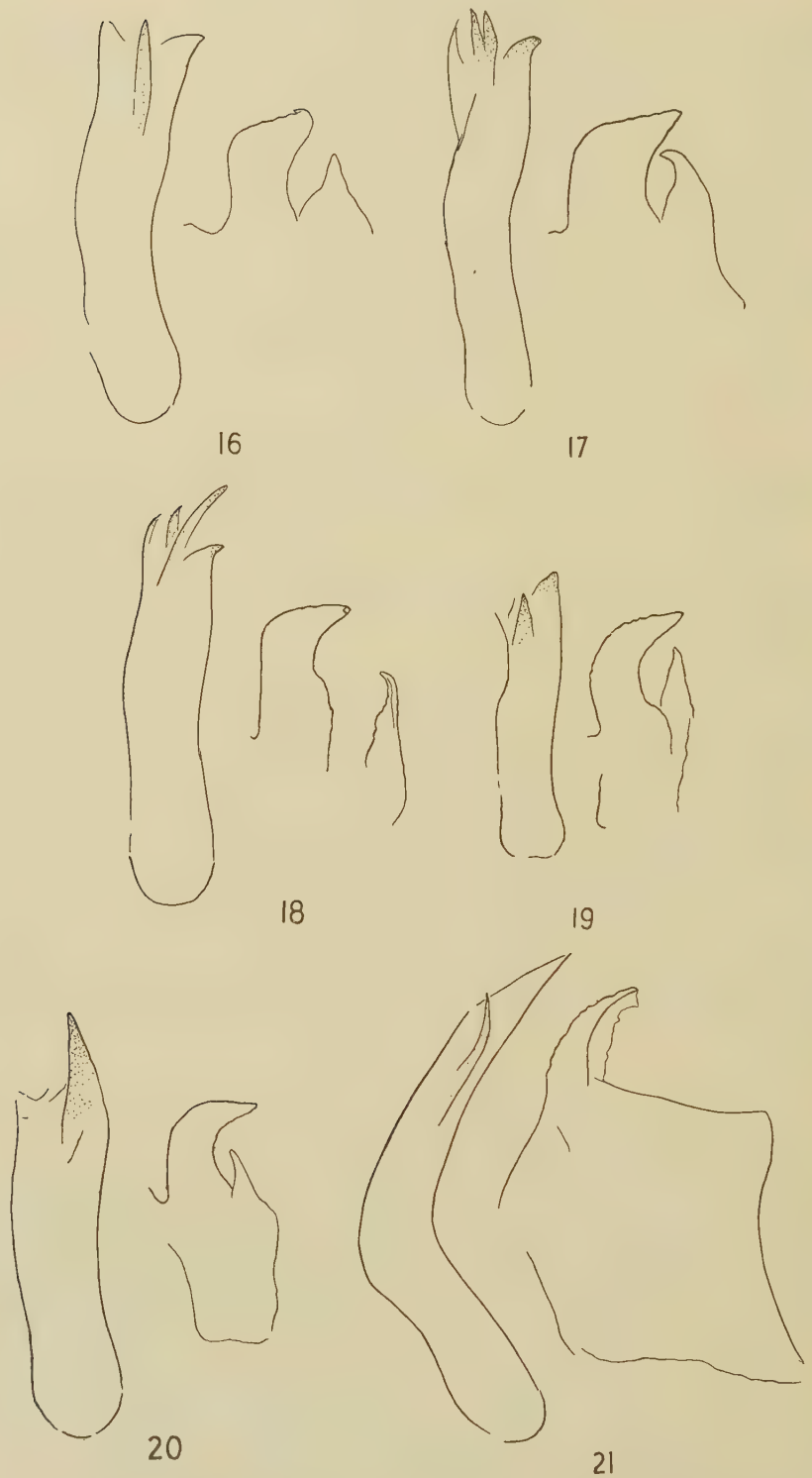
Other subspecies are *binghami* (Fruh.), Tenasserim, *procotes* Nic., Sumatra, and *phalia* (Hew.), Borneo (Seitz, pl. 154 l 8 ♂, 9 ♂ und.), (= *chimara* (Fruh.), West Borneo).

Simiskina pediada pediada (Hew.).

Poritia pediada Hewitson, 1877, *Ent. mon. Mag.* **13** : 223; ♀, Singapore. 1878, *Ill. diurn. Lep. Lyc.* : 218, pl. lxxxix, f. 21, 22 ♀.
Poritia pediada Distant, 1884, *Rhop. Malay.* : 200, pl. xxii, f. 16 ♀.
Poritia pediada Seitz, 1927, *Grossschmett. Erde* **9** : 1010, pl. 154 g 8 ♀.

The nominotypical form is represented in the British Museum by females from Tavoy, Victoria Point and Singapore. Other females examined from Langkawi Islands (15.i.1939, *J. N. Eliot*) and Johore (Kota Tinggi, 6.i.1937, *C. F. Cowan*). Curiously enough, *pavonica* Nic., which appears to be the Sumatran representative of *S. pediada*, is represented in the collection only by males.

The type specimen of Siamese *veturia* (Fruh.) (Seitz, pl. 154 h l ♂) is not in the Fruhstorfer Collection, but a preparation of the male genitalia of the specimen in question shows the large aedeagus which is a character of *pavonica* and not of *S. philura*. I have seen no examples of *semperi* (Fruh.), Mindanao, Camiguin, which may also be a form of *S. pediada*.



Figs. 16–21.—Aedeagus and clasper of (16) *S. dohertyi dohertyi* Evans, Malaya; (17) *S. phalia binghami* (Fruh.), Burma, East Dawnas; (18) *S. pediada pavonica* Nic, Sumatra; (19) *S. philura elioti* subsp. n., Malaya, Allotype; (20) *S. pharyge deolina* (Fruh.), Malaya; (21) *Deramas livens livens* Dist., Malaya.

Simiskina philura elioti subsp. n.

Poritia philura H. H. Druce, 1895, *Proc. zool. Soc. Lond.* **1895** : 569, pl. xxxii, f. 1 ♂; Borneo, Kina Balu.

♀. *Upperside.* Differs from *philura* H. H. Drc. ♀, from North Borneo (Moulton, 1912, *J. Straits Br. R. asiat. Soc.* **6** : 121), in the broader blackish-brown markings in the basal two-thirds of the fore-wing and on the hind-wing. On the fore-wing, the dark costal border is blacker and slightly broader, and the dark wedge-shaped mark in spaces 1a and 1b, extending from the base almost to the dark border on the termen, is connected with the dark spot beyond the cell-end by a blackish-brown triangular spot, the base of which lies along vein 2. The broad blackish-brown discal band on the hind-wing is broader than in *philura*.

Underside as in *philura* ♀.

Wing expanse 27 mm.

Holotype. Malay Peninsula : Johore, Mersing Road, 42nd mile, 27.iii.1938 (*J. N. Eliot*). In British Museum.

♂. *Upperside.* Markings distinctly bluer than in *philura* ♂ (Seitz, pl. 154 k 2 ♂, 3 ♂ und.), and somewhat narrower, particularly the stripe below the median and the fore-wing cell-end spot.

Underside as in *philura* ♂.

Wing expanse 25 mm.

Allotype. Malay Peninsula : Johore, Kangkar Dohol, 26.xii.1938 (*C. F. Cowan*). In Coll. Cowan.

The nominotypical form is represented in the National Collection by 2 males and 6 females from North Borneo.

The Philippine species *S. bidotata* Fruh.[1] (Seitz, pl. 154 k 10 ♂, l 1 ♂ und. as " *binotata* ") is not known to me.

Genus *Deramas* Dist.

Deramas livens livens Dist.

Deramas livens Distant, 1886, *Ann. Mag. nat. Hist.* (5) **17** : 252; ♂, Singapore. 1886, *Rhop. Malay.* : 451, pl. xlii, f. 15 ♂.

Zarona bradamante de Nicéville, 1890, *Butt. India, Burmah & Ceylon* **3** : 36, ♂, Malay Peninsula, Kedah.

Zarona pharygoides de Nicéville, 1890, *J. Bombay nat. Hist. Soc.* **5** : 208, pl. E, f. 3 ♂, Malay Peninsula, Johore.

Deramas livens livens Seitz, 1927, *Grossschmett. Erde* **9** : 1010, pl. 154 l 10 ♂ und., pl. 155 a l ♂.

This species occurs in Burma and Malaysia, other described races being *jasoda* (Nic.), Pegu Hills (Seitz, pl. 155 a 2 ♂ und., 3 ♂), (= *zanella* (Nic.), Upper Tenasserim), and *livescens* Fruh., Java (P. & S., pl. xx, f. 26 a ♂, b ♀). It has been taken in Malaya from the Langkawi Islands to Singapore and at elevations up to 3500 feet.

A male (lacking the abdomen) of what appears to be this species from Pahang (Kuala Teku), in the Selangor Museum, has the upperside paler green than usual and agrees almost exactly with the figure of *elegans* in Seitz, pl. 154 l 2, except for a black submarginal spot in space 1b on the hind-wing. The hind-wing cell lacks the long hairs usually present in the Malayan race of this species. On the buff-brown underside, the faint post-discal line is straighter than usual, and the hind-wing orange subtornal scaling is much broader than in the normal form, extending through spaces 1c, 2 and 3. Wing expanse 29 mm.

[1] *Simiskina bidotata* Fruhstorfer, 1914, *Ent. Runds.* **31** : 18; ♂, Luzon.

It is possible that it represents a distinct species, but I hardly think so. Distant's figure shows another male lacking the black streak in space 1b on the fore-wing.

The types of the following forms have been examined in the British Museum : *ampsaga* Fruh., *bilitis* Fruh., *chimara* Fruh., *coronata* Fruh., *dawna* Evans, *demaculata* Fruh., *dohertyi* Evans, *elegans* Fruh. (♂ genitalia only), *elsiei* Evans, *erycinoides* Feld., *hewitsoni* Mre., *interjecta* Fruh., *javanica* Fruh., *karennia* Evans, *libna* Hew., *livescens* Fruh., *maina* Fruh., *manilia* Fruh., *milia* Fruh., *naukydes* Fruh., *nicias* Fruh., *nigra* Fruh., *nigritia* Fruh., *palilia* Fruh., *pasira* Moult., *pediada* Hew., *phalena* Hew., *phalia* Hew., *pharyge* Hew., *philota* Hew., *phraatica* Hew., *pleurata* Hew., *potina* Hew., *procotes* Nic., *promula* Hew., *psophis* Fruh., *regia* Evans, *solyma* Nic., *sumatrae* Feld., *taimana* Fruh., *trishna* Fruh. and *veturia* Fruh. (♂ genitalia only).

I am indebted to Brigadier W. H. Evans, C.S.I., C.I.E., D.S.O., for information regarding the Indian forms of Poritiinae, and to Captains C. F. Cowan and J. N. Eliot, of the Royal Artillery, for the loan of remarkably complete collections from the Malay Peninsula.

The opportunity has been taken of illustrating some hitherto unfigured species of Malayan Lycaenidae. These are *Allotinus dilutus* Corbet (1939, *Trans. R. ent. Soc. Lond.* **89** : 70; ♂♀, Malaya), *Miletus fictus* Corbet (1939, *Proc. R. ent. Soc. Lond.* (B) **8** : 26; ♀♂, Malaya), *M. heracleion* (Doherty) (1891, *J. asiat. Soc. Bengal* **60** : 36; ♂, Malaya), *Celastrina cyma* Toxopeus ♀ (Corbet, 1939, *Entomologist* **73** : 40), *Spindasis kutu* Corbet (1939, *Entomologist* **73** : 42; ♂ Malaya, ♀ Sumatra) and *Deudorix elioti* Corbet (1939, *Entomologist* **73** : 42; ♂♀, Malaya).

Explanation of Plate 1.

Fig. 1. *Poritia manilia evansi* subsp. n., ♂, Burma, Mergui.
2. *P. manilia evansi* subsp. n., ♀, Burma, Mergui.
3. *P. manilia manilia* Fruh., ♂, North-east Sumatra.
4. *P. phama taleva* subsp. n., ♂ holotype, Malaya.
5. *P. phama rajata* subsp. n., ♀, North-east Sumatra.
6. *Miletus heracleion* (Doh.), ♂ holotype, Malaya.
7. *M. fictus* Cbt., ♀ holotype, Malaya.
8. *Poritia pleurata* Hew., ♂, Malaya.
9. *P. hewitsoni marakata* subsp. n., ♂ holotype, Malaya.
10. *P. promula elegans* Fruh., ♂, Malaya.
11. *P. promula elegans* Fruh., ♀, Malaya.
12. *P. karennia* Evans, ♂, Burma, Karen Hills.
13. *Allotinus dilutus* Cbt., ♂, Malaya.
14. *A. dilutus* Cbt., ♀, Malaya.
15. *Simiskina dohertyi* Evans, ♂, Malaya.
16. *S. dohertyi* Evans, ♀, Burma, Kanbauk.
17. *S. pasira pasira* (Moult.), ♂, Malaya.
18. *S. philura elioti* subsp. n., ♂ allotype, Malaya.
19. *S. philura elioti* subsp. n., ♀ holotype, Malaya.
20. *Celastrina cyma* Tox., ♀, Malaya.
21. *Deudorix elioti* Cbt., ♂, holotype, Malaya.
22. *Simiskina pediada pavonica* Nic., ♂, North-east Sumatra.
23. *S. pediada pediada* (Hew.), ♀, Malaya.
24. *S. pheretia pheretia* (Hew.), ♀, Malaya.
25. *S. pasira pasira* (Moult.), ♀, Malaya.
26. *Spindasis kutu* Cbt., ♂ holotype, Malaya.
27. *S. kutu* Cbt., ♀ allotype, Sumatra.

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A. S. Corbet. Revision of Malayan *Poritiinæ*.